

CLAIMS LISTING

1.-76. (canceled)

77. A method for aspirating fluid from an ocular region during a phacoemulsification procedure, comprising:
aspirating the ocular region by applying a series of modulated differential pressure pulses to the ocular region via a fluid control device.

78. (original) The method of claim 77, wherein aspirating comprises delivering a series of pulses having a negative pressure differential from ambient for duration less than 100 milliseconds.

79. (original) The method of claim 78, wherein said negative pressure differential pulses are interspersed by brief de minimis pressure differential pulse periods.

80. (original) The method of claim 77, wherein negative pressure differential pulses are delivered using a phacoemulsification handpiece.

81. (original) The method of claim 77, further comprising delivering modulated ultrasonic energy to the ocular region simultaneous with said aspirating.

82. (original) The method of claim 81, wherein timing of modulated ultrasonic energy delivery corresponds to timing of the series of modulated pressure differential pulses.

83. (original) The method of claim 81, wherein timing of modulated ultrasonic energy delivery differs from timing of the series of modulated pressure differential pulses.

84. (original) The method of claim 81, wherein application of modulated ultrasonic energy delivery tends to induce transient cavitation in the ocular region.

85. (original) The method of claim 77, wherein each pressure differential pulse is at most approximately 25 milliseconds.

86. (original) The method of claim 77, wherein each pressure differential pulse is at most approximately eight milliseconds.

87-108. (canceled)

109. (new) A method for aspirating fluid from an ocular region, comprising:
applying a series of modulated differential pressure pulses to the ocular region via a fluid control device.

110. (new) The method of claim 109, wherein applying comprises delivering a series of pulses having a negative pressure differential from ambient for duration less than 100 milliseconds.

111. (new) The method of claim 110, wherein said negative pressure differential pulses are interspersed by brief de minimis pressure differential pulse periods.

112. (new) The method of claim 109, wherein negative pressure differential pulses are delivered using a phacoemulsification handpiece.

113. (new) The method of claim 109, further comprising delivering modulated ultrasonic energy to the ocular region simultaneous with said applying.

114. (new) The method of claim 113, wherein timing of modulated ultrasonic energy delivery corresponds to timing of the series of modulated pressure differential pulses.

115. (new) The method of claim 113, wherein timing of modulated ultrasonic energy delivery differs from timing of the series of modulated pressure differential pulses.

116. (new) The method of claim 113, wherein application of modulated ultrasonic energy delivery tends to induce transient cavitation in the ocular region.

117. (new) The method of claim 109, wherein each pressure differential pulse is at most approximately 25 milliseconds.

118. (new) The method of claim 109, wherein each pressure differential pulse is at most approximately eight milliseconds.

119. (new) A method for aspirating fluid from an ocular region, comprising:
applying modulated differential pressure pulses to the ocular region; and
delivering modulated ultrasonic energy to the ocular region simultaneous with said applying.

120. (new) The method of claim 119, wherein applying comprises delivering a series of pulses having a negative pressure differential from ambient for duration less than 100 milliseconds.

121. (new) The method of claim 120, wherein said negative pressure differential pulses are interspersed by brief de minimis pressure differential pulse periods.

122. (new) The method of claim 119, wherein negative pressure differential pulses are delivered using a phacoemulsification handpiece.

123. (new) The method of claim 119, wherein timing of modulated ultrasonic energy delivery corresponds to timing of the series of modulated pressure differential pulses.

124. (new) The method of claim 119, wherein timing of modulated ultrasonic energy delivery differs from timing of the series of modulated pressure differential pulses.

125. (new) The method of claim 119, wherein application of modulated ultrasonic energy delivery tends to induce transient cavitation in the ocular region.

126. (new) The method of claim 119, wherein each pressure differential pulse is at most approximately 25 milliseconds.

127. (new) The method of claim 119, wherein each pressure differential pulse is at most approximately eight milliseconds.

128. (new) A method for treating an ocular region, comprising:

applying modulated differential pressure pulses to the ocular region to aspirate the ocular region; and

delivering modulated ultrasonic energy to the ocular region simultaneous with said applying.

129. (new) The method of claim 128, wherein applying comprises delivering a series of pulses having a negative pressure differential from ambient pressure for a duration of less than 100 milliseconds.

130. (new) The method of claim 129, wherein said negative pressure differential pulses are interspersed by brief de minimis pressure differential pulse periods.

131. (new) The method of claim 129, wherein negative pressure differential pulses are delivered using a phacoemulsification handpiece.

132. (new) The method of claim 128, wherein timing of modulated ultrasonic energy delivery corresponds to timing of the series of modulated pressure differential pulses.

133. (new) The method of claim 128, wherein timing of modulated ultrasonic energy delivery differs from timing of the series of modulated pressure differential pulses.

134. (new) The method of claim 128, wherein applying modulated ultrasonic energy delivery tends to induce transient cavitation in the ocular region.

135. (new) The method of claim 128, wherein each pressure differential pulse is at most approximately 25 milliseconds.

136. (new) The method of claim 128, wherein each pressure differential pulse is at most approximately eight milliseconds.

137. (new) A method for aspirating fluid during a phacoemulsification procedure, comprising:

applying a series of modulated differential pressure pulses to an ocular region during the phacoemulsification procedure.

138. (new) The method of claim 137, wherein said applying occurs using a fluid control device.

139. (new) The method of claim 137, wherein applying comprises delivering a series of pulses having a negative pressure differential from ambient.

140. (new) The method of claim 139, wherein delivering the series of pulses having the negative pressure differential for a series of durations of less than 100 milliseconds.

141. (new) The method of claim 140, wherein said negative pressure differential pulses are interspersed by brief de minimis pressure differential pulse periods.

142. (new) The method of claim 138, wherein negative pressure differential pulses are delivered using a phacoemulsification handpiece.

143. (new) The method of claim 137, further comprising delivering modulated ultrasonic energy to the ocular region simultaneous with said aspirating.

144. (new) The method of claim 143, wherein timing of modulated ultrasonic energy delivery corresponds to timing of the series of modulated pressure differential pulses.

145. (new) The method of claim 143, wherein timing of modulated ultrasonic energy delivery differs from timing of the series of modulated pressure differential pulses.

146. (new) The method of claim 143, wherein application of modulated ultrasonic energy delivery tends to induce transient cavitation in the ocular region.

147. (new) The method of claim 139, wherein each pressure differential pulse is at most approximately 25 milliseconds.

148. (new) The method of claim 139, wherein each pressure differential pulse is at most approximately eight milliseconds.